

**IN THE CLAIMS**

Please amend the claims as follows.

For the Examiner's convenience, a list of all claims is included below.

1. (Previously Presented) A method for merging partially filled ATM cells, comprising the steps of:

removing a first partially filled ATM cell from an ATM cell stream;

removing a second partially filled ATM cell from the ATM cell stream;

and

merging the first partially filled ATM cell and the second partially filled ATM cell into a third ATM cell having information indicative of (i) a merging method used; and (ii) a padding method used for the first partially filled ATM cell.

2. (Original) A method for merging filled ATM cells as in claim 1, further comprising the step of:

inserting the third ATM cell into the ATM cell stream.

3. (Previously Presented) A method for merging partially filled ATM cells as in claim 2 wherein a header of said third ATM cell further includes information required to reconstruct the partially filled ATM cells contained within the third ATM cell.

4. (Canceled)

5. (Original) A method for merging partially filled ATM cells as in claim 2 wherein the third ATM cell is inserted into the ATM cell stream so as to maintain correct cell ordering within the ATM cell stream.
6. (Original) A method for merging partially filled ATM cells as in claim 5 wherein said steps of removing a first partially filled ATM cell from an ATM cell stream; removing a second partially filled ATM cell from the ATM cell stream; and merging the first partially filled ATM cell and the second partially filled ATM cell into a third ATM cell are carried out in an ATM switch.
7. (Original) A method for merging partially filled ATM cells as in claim 5 wherein said steps of removing a first partially filled ATM cell from an ATM cell stream; removing a second partially filled ATM cell from the ATM cell stream; and merging the first partially filled ATM cell and the second partially filled ATM cell into a third ATM cell are carried out in an ATM end-system.
8. (Original) A method for merging partially filled ATM cells as in claim 5 further comprising the step of transmitting the third ATM cell.
- 9-13 (Canceled)
14. (Previously Presented) An ATM network, comprising:  
a first node configured to identify partially filled ATM cells within

an ATM cell stream passing through the first node and to merge two or more of the partially filled ATM cells in the cell stream into a merged cell the merged cell having information indicative of (i) a merging method used, and (ii) a padding method used for one of the partially filled ATM cells; and

a second node coupled to the first node and configured to identify a merged ATM cells and to split the merged ATM cell into two or more partially filled ATM cells.

15. (Original) An ATM network as in claim 14 wherein the first node is configured such that circuitry in the first node performs the steps of:

removing a first partially filled ATM cell from the ATM cell stream;  
removing a second partially filled ATM cell from the ATM cell stream; and  
merging the first partially filled ATM cell and the second partially filled ATM cell into a third ATM cell.

16. (Original) An ATM network as in claim 15 wherein the first node is further configured such that circuitry in the first node performs the further step of:

inserting the third ATM cell into the ATM cell stream.

17. (Canceled)

18. (Original) An ATM network as in claim 16 wherein the third ATM cell is inserted into the ATM cell stream so as to maintain correct cell ordering within the ATM cell stream.

19. (Original) An ATM network as in claim 16 wherein the first node is an ATM end-system.

20. (Original) An ATM network as in claim 16 wherein the first node is an ATM switch.

21-23 (Canceled)

24. (Previously Presented) The method of claim 1 wherein the third ATM cell further includes information indicative of the number of partially filled ATM cells contained within the third ATM cell.

25. (Previously Presented) The ATM network of claim 14 wherein the merged cell further includes information indicative of the number of partially filled ATM cells contained within the third ATM cell

26. (Canceled)

27. (Previously Presented) The method of claim 1 wherein the information indicative of the merging method used and the padding method used is contained within a header of the third ATM cell.

28. (Previously Presented) The ATM network of claim 14 wherein the information indicative of the merging method used and the padding method used is contained within a header of the merged cell.

29. (Previously Presented) The method of claim 1 wherein at least one of the first or second partially filled ATM cell is identified on the basis of at least one of the following indicia: a connection number, a VCI/VPI, a PTI, or AAL information.

30. (Previously Presented) The ATM network of claim 14 wherein the first node is configured to identify partially filled ATM cells on the basis of at least one of the following indicia: a connection number, a VCI/VPI, a PTI, or AAL information.

31. (Previously Presented) The ATM network of claim 14 wherein the first ATM node is configured to check for a match between VPIs/VCIs of waiting partially filled ATM cells and a VCI/VPI of a fully packed ATM cell in the cell stream.

32. (Previously Presented) The ATM network of claim 31 wherein the first ATM node is further configured to reinsert the waiting partially filled ATM cells into the cell stream and before the fully packed cell when the VPIs/VCIs of the waiting partially filled ATM cells and the VCI/VPI of the fully packed ATM cell, to avoid cell out-of-order transmission within the ATM cell stream.

33. (Currently Amended) A method, comprising identifying partially filled ATM cells within an ATM cell stream according to a lookup table indexed by connection identification information indicating whether or not a connection includes partially filled ATM cells that can be merged, and merging two or more of the partially filled ATM cells into a fully packed ATM cell, wherein the fully packed ATM cell includes information indicative of the padding method used in the two or more partially filled ATM cells.

34. (Previously Presented) The method of claim 33 wherein the fully packed ATM cell has a header that includes information indicative of merging method used.

35. (Previously Presented) The method of claim 34 wherein the fully packed ATM cell further includes information required to reconstruct the two or more partially filled ATM cells.

36. (Canceled)

37. (Currently amended) An ATM mode, comprising a cell merging apparatus configured to identify partially filled ATM cells within a cell stream according to lookup table indexed by connection identification information, ~~and to merge two or more partially filled ATM cells into a third ATM cell,~~ and to avoid cell out-of-order transmission within the cell stream and before a fully packed cell when VPIs/SCIs

of the two or more partially filled ATM cells and a VCI/VPI of the fully packed ATM cell match.

38. (Currently amended) The ATM node of claim 37, wherein the cell merging apparatus is further configured to ~~is further configured to~~ insert the third ATM cell into on outgoing cell stream so as to avoid cell out-of-order transmission within the cell stream.

39. (Canceled)

40. (Previously Presented) The ATM node of claim 37, wherein the cell merging apparatus is further configured to construct the third ATM cell so that the third ATM cell includes information indicative of a merging method of use.

41 – 42 (Canceled)

43. (New) An ATM mode, comprising a cell merging apparatus configured to identify partially filled ATM cells within a cell stream according to lookup table indexed by connection identification information, ~~and to~~ merge two or more partially filled ATM cells into a third ATM cell, and to construct the third ATM cell so that the third ATM cell includes information indicative of a padding method used for the partially filled ATM cells.

44. (New) The ATM node of claim 43, wherein the cell merging apparatus is further configured to construct the third ATM cell so that the third ATM cell includes information indicative of a merging method used.